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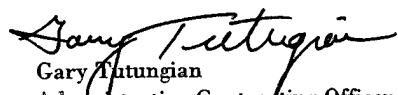
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FOR THE COMMANDER



Gary Jutungian
Administrative Contracting Officer
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FOREWORD

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1033	A Perspective on DoD SATCOM Architecture	Eaves, R.E. Shake, T.H. McElroy, D.R.	5 June 1997	ADA326251
1035	Scheduling Algorithms for Message Transmission Over the GBS Satellite System	Modiano, E.	11 Aug. 1997	ADA328857
1036	Scheduling Packet Transmissions in a Multi-hop Packet Switched Network Based on Message Length	Modiano, E.	30 June 1997	ADA327324
1038	The Westford Water Vapor Experiment: Use of GPS to Determine Total Precipitable Water Vapor	Coster, A.J. Niell, A.E. Burke, H.K. Czerwinski, M.G.	17 Dec. 1997	ADA332947

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7088	Miniature Solid-State Lasers	Zayhowski, J.J. Harrison, J.	Chapter 8 in <i>Handbook of Photonics</i> , CRC Press, 1997, pp. 326-392.
7117	Binary Optics	Farn, M.W.	Chapter 11 in <i>Handbook of Photonics</i> , CRC Press, 1997, pp. 459-501.
7145	Effects of Polarization and Resolution on SAR ATR	Novak, L.M. Halversen, S.D. Owirka, G.J. Hiett, M.	IEEE Trans. Aerosp. Electron. Syst., Vol. 33, No. 1, January 1997 pp. 102-116. ADA322067
7150	Advances in Laser Direct Writing	Bloomstein, T.M. Palmacci, S.T. Mathews, R.H. Nassuphis, N. Ehrlich, D.J.	Chapter in <i>Laser Processing: Surface Treatment and Film Deposition</i> , Kluwer Academic Publishers, 1996, pp. 895-906.
7156	Influence of Adhesive Strength Upon Crack Trapping in Brittle Heterogeneous Solids	Mower, T.M. Argon, A.S.	Toughened Plastics II: Novel Approaches in Science and Engineering, American Chemical Society, 1996, pp. 45-58.
7177	<i>N</i> -Type III-V Multiple-Quantum-Well Detectors Exhibiting Normal-Incidence Response	Brown, E.R. Eglash, S.J. McIntosh, K.A.	Chapter 6 in <i>Optoelectronic Properties of Semiconductors and Superlattices</i> , Vol. 1, Long Wavelength Infrared Detectors, Gordon & Breach Science Publishers, 1996, pp. 335-395.

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7254	Hole Traps in Natural Type IIb Diamond	Geis, M.W. Twichell, J.C.	IEEE Trans. Electron Devices, Vol. 44, No. 9, September 1997, pp. 1514–1522. ADA330552
7255C	Lithography at a Wavelength of 193 nm	Rothschild, M. Forte, A.R. Kunz, R.R. Palmateer, S.C. Sedlacek, J.H.C.	IBM J. Res. Dev., Vol. 41, No. 1/2, January/March 1997, pp. 49–55. ADA327540
7268	Diamond Emitters Fabrication and Theory	Geis, M.W. Twichell, J.C. Lysczarz, T.M.	J. Vac. Sci. Technol. B, Vol. 14, No. 3, May/June 1996, pp. 2060–2067.
7275	Binary Optics: A VLSI-Based Microoptics Technology	Stern, M.B.	Microelectron. Eng., Vol. 32, No. 1–4, September 1996, pp. 369–388.
7281	A Method of Moments Model for VHF Propagation	Johnson, J.T. Shin, R.T. Eidson, J.C. Tsang, L. Kong, J.A.	IEEE Trans. Antennas Propag., Vol. 45, No. 1, January 1997, pp. 115–125.
7310	Ferrite-Superconductor Devices for Advanced Microwave Applications	Dionne, G.F. Oates, D.E. Temme, D.H. Weiss, J.A.	IEEE Trans. Microw. Theory Tech., Vol. 44, No. 7, July 1996, pp. 1361–1368. ADA333472
7313	Sub-Poisson Statistics Observed in an Electronically Shuttered and Back-Illuminated CCD Pixel	Reich, R.K.	IEEE Trans. Electron Devices, Vol. 44, No. 1, January 1997, pp. 69–73. ADA322387

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7325	Low Complexity Optimal Joint Detection for Oversaturated Multiple Access Communications	Learned, R.E. Willsky, A.S. Boroson, D.M.	IEEE Trans. Signal Process., Vol. 45, No. 1, January 1997, pp. 113–123. ADA322392
7328	A 16-Element Subarray for Hybrid-Circuit Tile-Approach Spatial Power Combining	Gouker, M.A. Delisle, J.T. Duffy, S.M.	IEEE Trans. Microw. Theory Tech., Vol. 44, No. 11, November 1996, pp. 2093–2098.
7334	Speech Recognition by Machines and Humans	Lippmann, R.P.	Speech Commun., Vol. 22, No. 1, July 1997, pp. 1–15.
7339	Light Scattering in High-Dislocation-Density GaN	Liau, Z-L. Aggarwal, R.L. Maki, P.A. Molnar, R.J. Walpole, J.N. Williamson, R.C. Melngailis, I.	Appl. Phys. Lett., Vol. 69, No. 12, 16 September 1996, pp. 1665–1667.
7346	AM-FM Separation Using Auditory-Motivated Filters	Quatieri, T.F. Hanna, T.E. O'Leary, G.C.	IEEE Trans. Speech Audio Process., Vol. 5, No. 5, September 1997, pp. 465–480. ADA330553
7349	High-Power 1.3- μ m InGaAsP-InP Amplifiers with Tapered Gain Regions	Donnelly, J.P. Walpole, J.N. Betts, G.E. Groves, S.H. Woodhouse, J.D. O'Donnell, F.J. Missaggia, L.J. Bailey, R.J. Napoleone, A.	IEEE Photonics Technol. Lett., Vol. 8, No. 11, November 1996, pp. 1450–1452.
7354	40-Gbit/s Cascadable All-Optical Logic with an Ultrafast Nonlinear Interferometer	Patel, N.S. Hall, K.L. Rauschenbach, K.A.	Opt. Lett., Vol. 21, No. 18, 15 September 1996, pp. 1466–1468.

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7355	Executable Requirements and Specifications	Anderson, A.H. Shaw, G.A.	J. VLSI Signal Process., Vol. 15, No. 1-2, January 1997, pp. 49–61.
7357	Exact Modal Analysis and Optimization of $N \times N \times 1$ Cascaded Waveguide Structures with Multimode Guiding Sections	Thoen, E.R. Molter, L.A. Donnelly, J.P.	IEEE J. Quantum Electron., Vol. 33, No. 8, August 1997, pp. 1299–1307.
7359	Terahertz Measurements of Resonant Planar Antennas Coupled to Low-Temperature-Grown GaAs Photomixers	McIntosh, K.A. Brown, E.R. Nichols, K.B. McMahon, O.B. DiNatale, W.F. Lysczarz, T.M.	Appl. Phys. Lett., Vol. 69, No. 24, 9 December 1996, pp. 3632–3634.
7361	A 9-b Charge-to-Digital Converter for Integrated Image Sensors	Paul, S.A. Lee, H-S.	IEEE J. Solid-State Circuits, Vol. 31, No. 12, December 1996, pp. 1931–1938.
7362	45-GHz MMIC Power Combining Using a Circuit-Fed, Spatially Combined Array	Delisle, J.T. Gouker, M.A. Duffy, S.M.	IEEE Microw. Guid. Wave Lett., Vol. 7, No. 1, January 1997, pp. 15–17.
7364	Investigation of Ultrashort Photocarrier Relaxation Times in Low-Temperature-Grown GaAs	McIntosh, K.A. Nichols, K.B. Vergheese, S. Brown, E.R.	Appl. Phys. Lett., Vol. 70, No. 3, 20 January 1997, pp. 354–356. ADA339885
7366	Calorimetric Measurements of Optical Materials for 193 nm Lithography	Grenville, A. Uttaro, R.S. Sedlacek, J.H.C. Rothschild, M. Corliss, D.	J. Vac. Sci. Technol. B, Vol. 14, No. 6, November/December 1996, pp. 4184–4187. ADA327544
7367	40-Gb/s Demultiplexing Using an Ultrafast Nonlinear Interferometer (UNI)	Patel, N.S. Rauschenbach, K.A. Hall, K.L.	IEEE Photonics Technol. Lett., Vol. 8, No. 12, December 1996, pp. 1695–1697.

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7368	Superconductivity for Improved Microwave Ferrite Devices	Dionne, G.F. Oates, D.E. Temme, D.H. Weiss, J.A.	Linc. Lab. J., Vol. 9, No. 1, 1996, pp. 19-32. ADA333471
7371	Broad Wavelength Tunability of Grating-Coupled External Cavity Midinfrared Semiconductor Lasers	Le, H.Q. Turner, G.W. Ochoa, J.R. Manfra, M.J. Cook, C.C. Zhang, Y-H.	Appl. Phys. Lett., Vol. 69, No. 19, 4 November 1996, pp. 2804-2806.
7374	High-T _c Superconductive Wideband Compressive Receivers	Lyons, W.G. Arsenault, D.R. Anderson, A.C. Sollner, T.C.L.G. Murphy, P.G. Seaver, M.M. Boisvert, R.R. Slattery, R.L. Ralston, R.W.	Linc. Lab. J., Vol. 9, No. 1, 1996, pp. 33-66. ADA333487
7379	Use of Charge-Coupled Device Imagers for Charged-Particle Spectroscopy	Burke, B.E. Petrasso, R.D. Li, C.K. Hotaling, T.C.	Rev. Sci. Instrum., Vol. 68, No. 1, January 1997, pp. 599-602. ADA322148
7380	How Practical is 193 nm Lithography?	Rothschild, M. Burns, J.A. Cann, S.G. Forte, A.R. Keast, C.L. Kunz, R.R. Palmateer, S.C. Sedlacek, J.H.C. Uttaro, R.S. Grenville, A. Corliss, D.	J. Vac. Sci. Technol. B, Vol. 14, No. 6, November/December 1996, pp. 4157-4161. ADA327639
7382	Plasma-Deposited Silylation Resist for 193 nm Lithography	Horn, M.W. Maxwell, B.E. Goodman, R.B. Kunz, R.R. Eriksen, L.M.	J. Vac. Sci. Technol. B, Vol. 14, No. 6, November/December 1996, pp. 4207-4211. ADA327645

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7384	Simple Compact Diode-Laser/Microlens Packaging	Liau, Z-L. Tsang, D.Z. Walpole, J.N.	IEEE J. Quantum Electron., Vol. 33, No. 3, March 1997, pp. 457–461. ADA337535
7387	Effect of Optical Feedback on High-Dynamic-Range Fabry-Perot Laser Optical Links	Roussell, H.V. Helkey, R. Betts, G.E. Cox, C.H. III	IEEE Photonics Technol. Lett., Vol. 9, No. 1, January 1997, pp. 106–108.
7388	Strained Interface of Lattice-Mismatched Wafer Fusion	Liau, Z-L.	Phys. Rev. B, Condens. Matter, Vol. 55, No. 19, 15 May 1997, pp. 12899–12901.
7390	Bragg Grating Dispersion Compensation: Comments on 'UV-Written In-Fibre Bragg Gratings' by I. Bennion, J.A.R. Williams, L. Zhang, K. Sugden, N.J. Doran	Chinn, S.R.	Opt. Quantum Electron., Vol. 29, No. 3, March 1997, pp. 435–439.
7392	Spurious Reduction for Direct Digital Synthesizers	Kushner, L.J. Ainsworth, M.T.	Appl. Microw. Wirel., Vol. 8, No. 3, Summer 1996, pp. 44–63.
7393	Periodically Poled Lithium Niobate Optical Parametric Amplifiers Pumped by High-Power Passively Q -Switched Microchip Lasers	Zayhowski, J.J.	Opt. Lett., Vol. 22, No. 3, 1 February 1997, pp. 169–171.
7395	Mid-Infrared Semiconductor Lasers	Choi, H-K.	Rev. Laser Eng. (Japan), Vol. 25, No. 1, January 1997, pp. 9–14.

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7396	Turn-Key, Liquid-Nitrogen-Cooled 3.9 μ m Semiconductor Laser Package with 0.2W CW Output	Le, H.Q. Turner, G.W. Ochoa, J.R.	Electron. Lett., Vol. 32, No. 25, 5 December 1996, pp. 2359–2360.
7398	GaInAsSb/AlGaAsSb Multiple-Quantum-Well Diode Lasers Grown by Organometallic Vapor Phase Epitaxy	Wang, C.A. Choi, H-K.	Appl. Phys. Lett., Vol. 70, No. 7, 17 February 1997, pp. 802–804.
7399	An Epitaxially-Grown Charge Modulation Device	Reich, R.K. Mountain, R.W. Robinson, M. McGonagle, W.H. Loomis, A.H. Kosicki, B.B. Savoye, E.D.	IEEE Trans. Electron Devices, Vol. 44, No. 10, October 1997, pp. 1672–1678. ADA331505
7400	Growth of Gallium Nitride by Hydride Vapor-Phase Epitaxy	Molnar, R.J. Götz, W. Romano, L.T. Johnson, N.M.	J. Cryst. Growth, Vol. 178, No. 1/2, June 1997, pp. 147–156.
7404	A Down-Conversion Optical Link with RF Gain	Helkey, R. Twichell, J.C. Cox, C.H. III	J. Lightwave Technol., Vol. 15, No. 6, June 1997, pp. 956–961.
7405A	Optical Coherence Tomography Using a Frequency-Tunable Optical Source	Chinn, S.R. Swanson, E.A. Fujimoto, J.G.	Opt. Lett., Vol. 22, No. 5, 1 March 1997, pp. 340–342.
7406	X-Ray Photoelectron Spectroscopy and X-Ray Diffraction Study of the Thermal Oxide on Gallium Nitride	Wolter, S.D. Luther, B.P. Waltemyer, D.L. Önneby, C. Mohney, S.E. Molnar, R.J.	Appl. Phys. Lett., Vol. 70, No. 16, 21 April 1997, pp. 2156–2158.

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7407	Coronary Artery Bypass Risk Prediction Using Neural Networks	Lippmann, R.P. Shahian, D.M.	Ann. Thorac. Surg., Vol. 63, No. 6, June 1997, pp. 1635–1643.
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7416	A Terrestrial Air Link for Evaluating Dual-Polarization Techniques in Satellite Communications	Fenn, A.J. Rispin, L.W.	Linc. Lab. J., Vol. 9, No. 1, 1996, pp. 3–18. ADA333474
7417	Thin-Film Imaging: Past, Present, Prognosis	Seeger, D.E. La Tulipe, D.C., Jr. Kunz, R.R. Garza, C.M. Hanratty, M.A.	IBM J. Res. Dev., Vol. 41, No. 1/2, January/March 1997, pp. 105–118.
7422	Self-Aligned Pseudomorphic HEMT with a Low-Temperature-Grown GaAs Gate Insulator	Chen, C-L. Mahoney, L.J. Calawa, S.D. Molvar, K.M. Calawa, A.R.	Electron. Lett., Vol. 33, No. 7, 27 March 1997, pp. 640–642.
7430	Resonant-Tunneling Transmission-Line Relaxation Oscillator	Brown, E.R. Parker, C.D. Vergheze, S. Geis, M.W. Harvey, J.F.	Appl. Phys. Lett., Vol. 70, No. 21, 26 May 1997, pp. 2787–2789.
7431	Three-Dimensional Metallodielectric Photonic Crystals Exhibiting Resonant Infrared Stop Bands	McIntosh, K.A. Mahoney, L.J. Molvar, K.M. McMahon, O.B. Vergheze, S. Rothschild, M. Brown, E.R.	Appl. Phys. Lett., Vol. 70, No. 22, 2 June 1997, pp. 2937–2939.

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7433	Pressure Induced Deep Gap State of Oxygen in GaN	Wetzel, C. Suski, T. Ager, J.W. III Weber, E.R. Haller, E.E. Fischer, S. Meyer, B.K. Molnar, R.J. Perlin, P.	Phys. Rev. Lett., Vol. 78, No. 20, 19 May 1997, pp. 3923–3926.
7434	Soft-X-Ray CCD Imagers for AXAF	Burke, B.E. Gregory, J.A. Bautz, M.W. Prigozhin, G.Y. Kissel, S.E. Kosicki, B.B. Loomis, A.H. Young, D.J.	IEEE Trans. Electron Devices, Vol. 44, No. 10, October 1997, pp. 1633–1642. ADA331388
7435	Highly Tunable Fiber-Coupled Photomixers with Coherent Terahertz Output Power	Verghese, S. McIntosh, K.A. Brown, E.R.	IEEE Trans. Microw. Theory Tech., Vol. 45, No. 8, August 1997, pp. 1301–1309. ADA337678
7437	A Micropower Analog Circuit Implementation of Hidden Markov Model State Decoding	Lazzaro, J. Wawrzynek, J. Lippmann, R.P.	IEEE J. Solid-State Circuits, Vol. 32, No. 8, August 1997, pp. 1200–1209.
7448	Semiconductor Laser Sources for Externally Modulated Microwave Analog Links	Betts, G.E. Donnelly, J.P. Walpole, J.N. Groves, S.H. O'Donnell, F.J. Missaggia, L.J. Bailey, R.J. Napoleone, A.	IEEE Trans. Microw. Theory Tech., Vol. 45, No. 8, August 1997, pp. 1280–1287. ADA337605.

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7449	New Self-Aligned Planar Resonant-Tunneling Diodes for Monolithic Circuits	Chen, C-L. Mathews, R.H. Mahoney, L.J. Maki, P.A. Molvar, K.M. Sage, J.P. Fitch, G.L. Sollner, T.C.L.G.	IEEE Electron Device Lett., Vol. 18, No. 10, October 1997, pp. 489-491. ADA337667
7454	Analysis of Counter-Pumped Small-Signal Fiber Raman Amplifiers	Chinn, S.R.	Electron. Lett., Vol. 33, No. 7, 27 March 1997, pp. 607-608.
7456	Defect Donor and Acceptor in GaN	Look, D.C. Reynolds, D.C. Hemsky, J.W. Sizelove, J.R. Jones, R.L. Molnar, R.J.	Phys. Rev. Lett., Vol. 79, No. 12, 22 September 1997, pp. 2273-2276.
7457	Degenerate Layer at GaN/Sapphire Interface: Influence on Hall-Effect Measurements	Look, D.C. Molnar, R.J.	Appl. Phys. Lett., Vol. 70, No. 25, 23 June 1997, pp. 3377-3379.
7458	Microchip Optical Parametric Oscillators	Zayhowski, J.J.	IEEE Photonics Technol. Lett., Vol. 9, No. 7, July 1997, pp. 925-927. ADA330622
7462	Optical Rate Conversion for High-Speed TDM Networks	Patel, N.S. Hall, K.L. Rauschenbach, K.A.	IEEE Photonics Technol. Lett., Vol. 9, No. 9, September 1997, pp. 1277-1279. ADA330767
7464	Critical-State Model for Harmonic Generation in a Superconducting Microwave Resonator	McDonald, J. Clem, J.R. Oates, D.E.	Phys. Rev. B, Condens. Matter, Vol. 55, No. 17, 1 May 1997, pp. 11823-11831

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7467	Single-Mode High-Peak-Power Passively <i>Q</i> -Switched Diode-Pumped Nd:YAG Laser	Afzal, R.S. Yu, A.W. Zayhowski, J.J. Fan, T.Y.	Opt. Lett., Vol. 22, No. 17, 1 September 1997, pp. 1314-1316.
7468	Improved Localization of Energy Deposition in Adaptive Phased-Array Hyperthermia Treatment of Cancer	Fenn, A.J. Sathiaseelan, V. King, G.A. Stauffer, P.R.	Linc. Lab. J., Vol. 9, No. 2, 1996, pp. 187-196. ADA333484
7472	Techniques and Performance of Intensity-Modulation Direct-Detection Analog Optical Links	Cox, C.H. III Ackerman, E.I. Helkey, R. Betts, G.E.	IEEE Trans. Microw. Theory Tech., Vol. 45, No. 8, August 1997, pp. 1375-1383. ADA330627
7475	Strain Determination in Heteroepitaxial GaN	Skromme, B.J. Zhao, H. Wang, D. Kong, H.S. Leonard, M.T. Bulman, G.E. Molnar, R.J.	Appl. Phys. Lett., Vol. 71, No. 6, 11 August 1997, pp. 829-831.
7476	Micro Air Vehicles for Optical Surveillance	Davis, W.R., Jr. Kosicki, B.B. Boroson, D.M. Kostishack, D.F.	Linc. Lab. J., Vol. 9, No. 2, 1996, pp. 197-214. ADA333492
7477	40-Gbit/s All-Optical Circulating Shift Register with an Inverter	Hall, K.L. Donnelly, J.P. Groves, S.H. Fennelly, C.I. Bailey, R.J. Napoleone, A.	Opt. Lett., Vol. 22, No. 19, 1 October 1997, pp. 1479-1481. ADA331447
7484	Structure of GaN Films Grown by Hydride Vapor Phase Epitaxy	Romano, L.T. Krusor, B.S. Molnar, R.J.	Appl. Phys. Lett., Vol. 71, No. 16, 20 October 1997, pp. 2283-2285.

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7490	Space-Time Adaptive Processing on the Mesh Synchronous Processor	McMahon, J.O.	Linc. Lab. J., Vol. 9, No. 2, 1996, pp. 131-152. ADA333490
7497	Nonconventional 3D Imaging Using Wavelength-Dependent Speckle	Shirley, L.G. Hallerman, G.R.	Linc. Lab. J., Vol. 9, No. 2, 1996, pp. 153-186. ADA333473

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11352	Target Detection in Post-STAP Undernullled Clutter	Kreithen, D.E. Steinhardt, A.O.	Twenty-Ninth Asilomar Conf. on Signals, Systems and Computers, 30 October – 1 November 1995, pp. 1203–1207.
11388	Cost-Efficient Training Strategies for Space-Time Adaptive Processing Algorithms	Borsari, G.K. Steinhardt, A.O.	Twenty-Ninth Asilomar Conf. on Signals, Systems and Computers, 30 October – 1 November 1995, pp. 650–654.
11399	Space-Time Clutter Covariance Matrix Computation and Interference Subspace Tracking	Smith, S.T.	Twenty-Ninth Asilomar Conf. on Signals, Systems and Computers 30 October – 1 November 1995, pp. 1193–1197.
11420A	Limits to Etch Resistance for 193-nm Single-Layer Resists	Kunz, R.R. Palmateer, S.C. Forte, A.R. Allen, R.D. Wallraff, G.M. DiPietro, R.A. Hofer, D.C.	SPIE, Vol. 2724, Advances in Resist Technology and Processing XIII, 11–13 March 1996, pp. 365–376.
11428	Diode-Pumped Solid-State Lasers	Fan, T.Y.	Chapter in <i>Laser Sources and Applications: Proc. of the Forty-Seventh Scottish Universities Summer School in Physics</i> , June 1995, Institute of Physics, 1996, pp. 163–193.
11456	Optically Pumped GaN-AlGaN Double-Heterostructure Lasers Grown by ECR-GSMBE and HVPE	Maki, P.A. Molnar, R.J. Aggarwal, R.L. Liau, Z-L. Melingailis, I.	Materials Research Society Symp. Proc., Vol. 395, 1996, pp. 919-924.

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